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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,505	12/30/2005	Michel Tielemans	2005_1972A	5662

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EXAMINER

NILAND, PATRICK DENNIS

ART UNIT PAPER NUMBER

1714

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/560,505	Applicant(s) TIELEMANS ET AL.	
	Examiner Patrick D. Niland	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/05</u> | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The instant claims recite “obtainable”. Given the lack of knowledge of what a given polymerization exactly makes, e.g. the monomer sequences in each polymer molecule are unknown and average functionalities, average molecular weights, degree of polymerization, polydispersity, etc. vary widely based on small changes in reaction conditions, and the resultant lack of knowledge of what is exactly and precisely made, the term “obtainable” renders the instant claims indefinite in that the meets and bounds of the scope of the instant claims is unclear due to this term. “Obtainable” encompasses making the instantly claimed dispersion by any other methods. Given the lack of precision of polymer claims inherent to them regarding exactly and precisely what is made, it would require an infinite amount of experimentation to determine what other products made by other processes are encompassed by the instant claims. This amount of experimentation is impossible to perform and is therefore “undue”. **“Obtained” is acceptable.**

The following are supporting descisions for rejecting "obtainable" and similar terms as indefinite.

1. Atlantic Thermoplastics Co. Inc. v Faytex Corp. 23 USPQ 2nd 1481 (1486).

In footnote 6, on page 1486, referring to *Cochrane v Badische Aniline and Soda Fabrik* (BASF), 11 US 293, the court stated "...because artificial alizarine can take different forms, BASF's claim would be indefinite unless limited to the described process".

The claim referred to is

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"Artificial alizarine produced from anthracene or its derivatives by either of the methods described herein or any other method producing a like result."

2. Ex parte Tanksley 26 USPQ 2nd 1389

"A claim is indefinite if undue experimentation is involved to determine boundaries of protection".

This rationale is applicable to polymers obtainable by a stated process because any variation in any parameter within the scope of the claimed process would change the polymer produced. One who made or used a polymer made by a process other than the process recited in the claim would have to produce polymers using all possible parameters within the scope of the claims (temperature, pressure, diluents, component ratios, feed ratios, etc.) and then extensively analyze each product, to determine if his polymer was obtainable by a process within the claimed process.

3. Purdue Research v Watson 1959 CD 124 (Dist Ct) affirmed by CCPA 120 USPQ 521.

"Preparable by" was held to not particularly point out and distinctly claim the invention.

"When one has produced a composition of matter where it is not possible to define its characteristics which make it inventive except by reference to the process by which it is produced, one is permitted to so claim the composition produced by the process referred to in the claims. When the composition is thus claimed in terms of the process of its preparation, the product cannot be defined in such a manner as to assert a monopoly on the product by whatever means produced.

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B. The instant claims 2, 3, and 8 recite Markush groups having multiple recitations of “and” and/or “or” throughout a list of components. Since a Markush group is to recite “and” or “or” prior to the last component in the list (See MPEP 2173.05(h) Alternative Limitations

I. MARKUSH GROUPS), the multiple recitations of “and” and/or “or” throughout a list of components makes it unclear where the Markush group ends and where a differently required ingredient list begins.

C. The instant claim 1 recites “(v) having or not remaining functional groups after the capping”. Component (B) requires itself to have “functional groups reactive with the functional groups of the polyurethane polymer (A). It is unclear how this can happen and what the claim limitations mean in the instance of “or not” recited above.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 6566438 Ingrisich et al..

Ingrisich discloses the instantly claimed compositions, methods of making, and use at the abstract; column 2, lines 53-67; column 3, lines 1-67; column 4, lines 1-67; column 5, lines 1-67,

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particularly 20-24 and 60-67, more particularly noting the "high boiling" solvent; column 6, lines 1-67, particularly 1-7 noting the function of the solvent in aiding in coalescence and the solvents of lines 1-3 fall within the scope of those of the instant claims, lines 9-24, more particularly 19-21 which are expected to be incorporated into the vinyl polymer upon initiation of the mixture and these compounds can react with the acid groups and NCO groups of the polyurethane and which amount falls within the scope of the instant claim 12, and lines 47-67; column 7, lines 1-67, particularly 25-29 and 36-37 which can react with NCO and acid groups of the polyurethane and the anhydride can react with any amino groups which might result from the disclosed chain extensions; column 9, lines 1-67, particularly 1-11, 27-30, and 36-40 which encompasses the presence of free NCO where the chain extension is less than 100%. Even in the presence of water, the dispersed particles are known to be able to retain unreacted NCO groups within the dispersed particles which water cannot diffuse to and therefore cannot react with; and the remainder of the document.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6566438 Ingrisich et al..

Ingrisich discloses the instantly claimed compositions, methods of making, and use at the abstract; column 2, lines 53-67; column 3, lines 1-67; column 4, lines 1-67; column 5, lines 1-67, particularly 20-24 and 60-67, more particularly noting the "high boiling" solvent; column 6, lines 1-67, particularly 1-7 noting the function of the solvent in aiding in coalescence and the solvents of lines 1-3 fall within the scope of those of the instant claims, lines 9-24, more particularly 19-21 which are expected to be incorporated into the vinyl polymer upon initiation of the mixture and these compounds can react with the acid groups and NCO groups of the polyurethane and

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which amount falls within the scope of the instant claim 12, and lines 47-67; column 7, lines 1-67, particularly 25-29 and 36-37 which can react with NCO and acid groups of the polyurethane and the anhydride can react with any amino groups which might result from the disclosed chain extensions; column 9, lines 1-67, particularly 1-11, 27-30, and 36-40 which encompasses the presence of free NCO where the chain extension is less than 100%. Even in the presence of water, the dispersed particles are known to be able to retain unreacted NCO groups within the dispersed particles which water cannot diffuse to and therefore cannot react with; and the remainder of the document.

It would have been obvious to one of ordinary skill in the art to use the above combinations of ingredients and amounts thereof in the compositions of the patentee because they are encompassed by the patentee and would have been expected to give the properties of the compositions of the patentee.

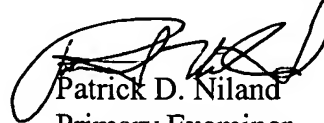
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick D. Niland
Primary Examiner
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